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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,325	08/27/2003	Axel Klimmek	A 91802	5357

7590 08/08/2005

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EXAMINER
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NGUYEN, TU MINH

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/648,325

Applicant(s)

KLIMMEK ET AL.

Examiner

Tu M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,5 and 7-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5 and 7-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. An Applicant's Amendment filed on July 22, 2005 has been entered. Claims 2, 3, and 6 have been canceled; claims 1, 4, 5, and 7 have been amended; and claim 13 has been added. Overall, claims 1, 4, 5, and 7-13 are pending in this application.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 5, and 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tenney (U.S. Patent 3,703,937) in view of legal precedent.

Re claims 1 and 4, as shown in Figures 1-3, Tenney discloses an internal combustion engine including a two-stroke engine, the internal combustion engine comprising:

- an outlet (18) for discharging exhaust gases in a flow direction from the engine (15);
- an exhaust-gas muffler (34) having an attenuating space (35) defining an inlet opening for receiving the exhaust gases;
- at least one resonance pipe (30 or 41) connected to the outlet and opening into the attenuating space via the inlet opening so as to cause the resonance pipe to be arranged in the

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flow direction between the outlet and the inlet opening for fluidly connecting the outlet to the inlet opening; and,

- the resonance pipe (30 or 41) having a diaphragm (48) for opening into the exhaust-gas muffler.

With regard to the preamble directed to “for a handheld portable work apparatus”, a preamble to a claim is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self contained description of the structure not depending for completeness upon the introductory clause. See *Kropa v. Robie*, *supra* at 480. See also *Ex parte Mott*, 190 USPQ 311, 313 (PTO Bd. of App. 1975). Clearly, the pending claim 1 does not rely on the preamble for completeness.

Tenney, however, fails to disclose that the diaphragm has an equivalent diameter measured in millimeters which amounts approximately 1 to 3 times the square root of the volume of the piston displacement of the engine with the volume being measured in cubic centimeters; and that the resonance pipe has an equivalent diameter measured in millimeters which amounts to approximately 2.5 to 6 times the square root of the volume of the piston displacement of the engine with the volume being measured in cubic centimeters.

Tenney discloses the claimed invention except for specifying an optimum range of equivalent diameter for the diaphragm of about 1 to 3 times the square root of the volume of the piston displacement. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a specific optimum range of equivalent diameter for the diaphragm, since it has been held that where the general conditions of a claim are disclosed in

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the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

*In re Aller*, 105 USPQ 233.

Tenney discloses the claimed invention except for specifying an optimum range of equivalent diameter for the resonance pipe of about 2.5 to 6 times the square root of the volume of the piston displacement. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a specific optimum range of equivalent diameter for the resonance pipe, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claim 5, in the engine of Tenney, the equivalent diameter is variable.

Re claim 7, in the engine of Tenney, the equivalent diameter of the resonance pipe (41) is approximately constant over the length thereof.

Re claim 8, in the engine of Tenney, the length of the resonance pipe (41) is matched to the engine speed of the engine (lines 52-58 of column 6).

Re claim 9, the engine of Tenney discloses the invention as cited above, however, fails to disclose that the length of the resonance pipe is matched to 60% to 100% of the rated rpm of the engine speed.

Tenney discloses the claimed invention except for specifying that an optimum length of the resonance pipe is matched to 60% to 100% of the rated rpm of the engine speed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a specific optimum length of the resonance pipe, since it has been held that discovering

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an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Re claim 10, in the engine of Tenney, the resonance pipe is one of a plurality of resonance pipes (30, 41).

Re claim 11, in the engine of Tenney, the inlet in at least one of the resonance pipes (30 or 41) is closeable.

Re claim 12, in the engine of Tenney, at least one inlet opening into the exhaust-gas muffler (34) is configured to be closeable.

Re claim 13, the engine of Tenney discloses the invention as cited above, however, fails to disclose that the engine is mounted in a portable handheld work apparatus.

Tenney discloses the claimed invention except for applying the invention to an engine mounted in a portable handheld work apparatus. It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the invention of Tenney to a portable handheld work apparatus, since the recitation of such amounts to an intended use statement. Note that the two-stroke engine in Tenney is useful to power a variety of devices; and the mere selection of the engine in Tenney for use to power a portable handheld work apparatus would be well within the level of ordinary skill in the art.

#### ***Response to Arguments***

4. Applicant's arguments with respect to the references utilized in the previous Office Action have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

*Prior Art*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of two patents: Tenney (U.S. Patent 3,367,311) and Leistritz (Germany Patent DE 3707778 A1) further disclose a state of the art.

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*Communication*

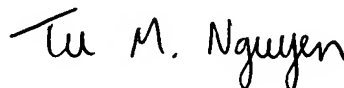
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (571) 272-4862.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TMN

August 4, 2005



Tu M. Nguyen

Primary Examiner

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